

ABSTRACT OF THE DISCLOSURE

Disclosed is a distillation system and method for recovering acetic acid from a feed stream containing acetic acid and water stream generated during terephthalic acid production. The invention includes a dehydration column utilizing azeotropic distillation to recover the acetic acid in conjunction with a condenser system to recover the energy. The dehydration column operates with a pressure of at least 1.2 kg/cm² abs. or higher pressure at the top of the column. The condenser system is a steam generator that condenses the vapor into a concentrated acetic acid stream while generating a low pressure steam of 0.6 – 2.0 kg/cm abs.